



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/877,159	06/08/2001	David M. Baggett	09765-011002	1014
26161 7590 07/10/2008 FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022				
EXAMINER MOONEYHAM, JANICE A				
ART UNIT		PAPER NUMBER		
3689				
MAIL DATE		DELIVERY MODE		
07/10/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

1 UNITED STATES PATENT AND TRADEMARK OFFICE

2  
3  
4 BEFORE THE BOARD OF PATENT APPEALS  
5 AND INTERFERENCES  
6

7  
8 *Ex parte* DAVID M. BAGGETT  
9

10  
11 Appeal 2007-2648  
12 Application 09/877,159  
13 Technology Center 3600  
14

15  
16 Decided: July 10, 2008  
17

18  
19 Before HUBERT C. LORIN, ANTON W. FETTING, and JOSEPH A.  
20 FISCHETTI, *Administrative Patent Judges*.

21  
22 FETTING, *Administrative Patent Judge*.  
23

24  
25 DECISION ON REQUEST FOR REHEARING  
26

27 The Appellant filed a “REQUEST FOR RECONSIDERATION OF  
28 THE DECISION ON APPEAL DATED MARCH 10, 2008” on May 5,  
29 2008. The Examiner rejected claims 1-46 and 52-55 under 35 U.S.C.  
30 § 103(a) as unpatentable over Gardner, Admitted Prior Art, and ATPCO.  
31 We affirmed the rejection of claims 1, 7-20, 22, and 28-41 in our Decision,

but reversed the rejection of claims 2-6, 21, 23-27, 42, and 52-55. We entered a new ground of rejection of claims 2-6, 21, 23-27, 42, and 52-55 under 35 U.S.C. § 103(a) as unpatentable over Gardner, ATPCO, the admitted prior art, Tremblay, and Wiederhold. The Appellant seeks reconsideration of the decision to affirm the rejection of claims 1, 7-20, 22, and 28-41 and seeks withdrawal of the new ground of rejection of claims 2-6, 21, 23-27, 42, and 52-55.

We GRANT-IN-PART the REQUEST FOR REHEARING to the extent that we reverse the rejection of claim 9 under 35 U.S.C. § 103(a) as unpatentable over Gardner, Admitted Prior Art, and ATPCO.

## ISSUES

The issues pertinent to this request are whether the Appellant has sustained its burden of showing that we misapprehended the art or the claims and thus erred in sustaining the rejections of claims 1, 7-20, 22, and 28-41, and whether we erred in rejecting claims 2-6, 21, 23-27, 42, and 52-55. 37 C.F.R. § 41.52(a)(1) and (3) (2007).

## ANALYSIS

### *Claims 1, 7, 8, 10-20, 22, and 28-41.*

We found in our decision that claims 1, 7, 8, 10-20, 22, and 28-41 were unpatentable over the prior art (Decision 19).

The Appellant argues that we misapprehended the arguments (Request 2:¶ II) and the references (Request 8:¶ VI); that we failed to consider all claim limitations (Request 4:¶ III); and that we misapprehended the applicable law (Request 5:¶ IV and 8:¶ V).

1           The Appellant contends that each of our recountings as to the  
2 Appellant's arguments (Decision 13) misapprehended the argument  
3 (Request 2-4:¶ II). The Appellant contends that its arguments were that  
4 Gardner does not teach how to construct fares nor does it use arbitraries or  
5 produce constructed fares, and that a combination of Gardner and ATPCO  
6 would only result in a conventional cross product approach.

7           We responded to each of the arguments as the arguments were  
8 contended by the Appellant (Decision 13-16). Thus, we do not find that we  
9 misapprehended the Appellant's arguments.

10          The Appellant contends we misapprehended Gardner (Request 8-11:  
11 ¶ VI). The Appellant does make any contention as to how we  
12 misapprehended Gardner, but only as to the facts we inferred. The  
13 Appellant contends that Gardner does not teach any algorithm to produce  
14 constructed fares (Request 9:Top ¶). This argument relies on the special  
15 meaning of the phrase "constructed fares" as a combination of a published  
16 fare with one or more arbitraries, since Gardner clearly has a process for  
17 constructing total fares by adding component fares together (Decision  
18 :Findings of Fact 19 – 27). We did not find that Gardner explicitly taught  
19 producing "constructed fares," but only that such constructed fares were  
20 necessarily present in Gardner's data base (Decision 13:25 – 14:4). The  
21 remainder of the Appellant's contentions under the heading "VI. The  
22 Board's [sic] misapprehended the references" relate to claim construction  
23 rather than misapprehension of the references, and we address those below.

24          The Appellant further contends that we misapprehended the law by  
25 providing inadequate notice in failing to identify where critical teachings are  
26 found (Request 5:¶ IV) and by improperly relying on inherency (Request 8:¶

V). As to the contentions under ¶ IV, the Appellant refers to Decision 13:3-8 where we relate the Examiner's findings. These are supported by the Examiner's Answer pages 3-5. The Appellant apparently takes our findings as to what the Examiner's findings were to be our own independent findings as to the art. Thus, since we did indicate where in the Answer these findings were, the Appellant has not shown that we failed to provide adequate notice.

The Appellant also contends that inherency has no place in an obviousness rejection, citing *In re Dillon*, 919 F.2d 688, 718. The Appellant's reliance on *Dillon* is misplaced. In *Dillon*, a purported inherent property was unknown. Thus, *Dillon* merely held that reliance on an unknown inherent property was inappropriate in an obviousness rejection. The instant case is not that of a composition having unknown properties as in *Dillon*, but of the contents of a database that are created in a known and deliberate manner. Thus, the Appellant has not shown we misapprehended the law as to inherency.

Finally, the Appellant contends that we failed to consider all claim limitations (Request 4:¶ III; also Request 7, 9, and 10). The Appellant argues that we failed to show how an interrelationship between limitations [1] and [3a] are shown in the art. This relationship is the correspondence between interior cities found during preprocessing in limitation [1] and their application in limitation [3] (Request 4:Bottom ¶).

We found that every unpublished fare stored in Gardner was constructed by the process of step [3] in claim 1, leaving the issue as to whether steps [1] and [2] were predictable to one of ordinary skill in constructing these published fares (Decision 14:11-14). Limitation [3], apart from the relationship so claimed, is simply the computation taught by ATPCO as we

found (Decision 14:15-25). We find that the Appellant does not contend otherwise, but only that Gardner itself fails to teach this (Request 9:Top ¶) and that this alone does not take into consideration the relationship as claimed (Request 5:Second and third ¶'s).

As to whether Gardner describes the claimed computations, this is irrelevant since ATPCO describes those computations and they were necessarily performed to result in the fares stored in Gardner's database according to the industry practices described by ATPCO and the admitted prior art (Decision 13:25 – 14:25; also Findings of Fact 6 - 17).

We then found that this left the issue of whether limitations [1] and [2] were predictable (Decision 14:13-14). This necessarily included the issue of whether the correspondence so claimed was predictable. As we also found, the preprocessing necessarily performed by Gardner must have determined an arbitrary and a published fare that could be added to the arbitrary to create an unpublished fare and that determining such an arbitrary necessarily determines the interior city that appears with the gateway city in an arbitrary for an airline (Decision 14:17-25). Thus there was a correspondence between the interior cities found during preprocessing in limitation [1] and their application in limitation [3], and the Appellant has not shown that we failed to consider this limitation.

*Claims 2-6, 21, 23-27, 42, and 52-55.*

We entered a new ground of rejection under 35 U.S.C. § 103(a) as unpatentable over Gardner, ATPCO, the admitted prior art, Tremblay, and Wiederhold (Decision 20:1-3).

The Appellant argues that we did not consider the hash table index values of claim 2. The Appellant first argues that neither Tremblay nor

1 Wiederhold describe the claimed index values and then argue that none of  
2 Gardner, ATPCO, or the admitted prior art describe using a hash table.

3 The Appellant responds to the rejection by attacking the references  
4 separately, even though the rejection is based on the combined teachings of  
5 the references. Nonobviousness cannot be established by attacking the  
6 references individually when the rejection is predicated upon a combination  
7 of prior art disclosures. *See In re Merck & Co. Inc.*, 800 F.2d 1091, 1097,  
8 231 USPQ 375, 380 (Fed. Cir. 1986). Wiederhold provides the explicit  
9 rationale for applying hash tables to Gardner because hash tables are  
10 frequently used in pricing tables such as that in Gardner because of its  
11 superior access time (Decision 21: Findings of Fact 33 and 34). The index  
12 values would necessarily be those required to look up the hash table  
13 contents, i.e., the airline and cities served (Decision 22:6-12).

14 The Appellant also argues that we did not provide the documentary  
15 evidence to support our finding that a fare data structure is similar to a route  
16 data structure, and that a route schedule is not relevant (Request 14:¶ VIII).  
17 We referred to a route list merely as an example of a graph that would be  
18 indexed in a manner similar to the fare tables in Gardner. The tables of  
19 published fares and arbitraries are similarly examples of graphs, since they  
20 are tables of edges (fares and arbitraries) relating two vertices (cities). This  
21 would have been instantly clear to one of ordinary skill of data base design  
22 given the ubiquity of graph data and the notoriety of their application to  
23 transportation problems. One glance at Tremblay's Fig. 5-4.21(a) showing a  
24 picture of a graph would immediately show its relevance to one of ordinary  
25 skill designing the database structure of Gardner. As we further found,  
26 Tremblay describes using an edge list to store this graph data, and that this

1 must necessarily include an airline and an interior city pair (Decision 21:18  
2 – 22:2). Thus, we find that whether route tables *per se* are relevant is not  
3 pertinent to whether we erred in finding that one of ordinary skill would  
4 have searched pricing and flight schedules by Gardner and ATPCO using  
5 hash tables and indexes on airline and interior city.

6 The Appellant repeats its argument from claim 1 that the pre-processing  
7 was not inherent (Request 12-13). This argument is unpersuasive here for  
8 the same reasons we recited according to claim 1 *supra*.

9 *Claim 9.*

10 We found in our decision that claim 9 was unpatentable over the prior  
11 art (Decision 19).

12 The Appellant argues that we misapprehended the claim by referring  
13 to memorization rather than memoization (Request 16:¶ IX). We agree. We  
14 and the Examiner misread the term “memoization” in claim 9 as  
15 “memorization.” Memoization is defined in the Specification 14:26 – 15:7  
16 as a process that records queries and compares them to subsequent queries  
17 so that a repletion of a prior query is answered from the store of prior queries  
18 instead of a new query to a database. The Examiner did not show where any  
19 of the art described this and we have not found the art to describe this. Thus,  
20 the Appellant has overcome its burden of showing error in the rejection of  
21 claim 9.

22 For the above reasons we are not convinced of reversible error in our  
23 decision as to all of the claims except claim 9. The Appellant’s request for  
24 rehearing is granted, in that we withdraw the new ground of rejection as to  
25 claim 9.



DECISION

To summarize, our decision is as follows:

- We have considered the REQUEST FOR REHEARING
  - We do not reverse the Examiner as to claims 1, 7, 8, 10-20, 22, and 28-41.
  - We reverse the Examiner as to claim 9.
  - We do not withdraw the new ground of rejection as to claims 2-6, 21, 23-27, 42, and 52-55.
  - The rejection of claims 1, 7, 8, 10-20, 22, and 28-41 under 35 U.S.C. § 103(a) as unpatentable over Gardner, Admitted Prior Art, and ATPCO remains sustained.
  - The rejection of claim 9 under 35 U.S.C. § 103(a) as unpatentable over Gardner, Admitted Prior Art, and ATPCO is not sustained.
  - The rejection of claims 2-6, 21, 23-27, 42, and 52-55 under 35 U.S.C. § 103(a) as unpatentable over Gardner, Admitted Prior Art, and ATPCO remains not sustained.
  - Claims 2-6, 21, 23-27, 42, and 52-55 remain rejected under 35 U.S.C. § 103(a) as unpatentable over Gardner, ATPCO, the admitted prior art, Tremblay, and Wiederhold.
- No rejection remains against claim 9.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2007).

GRANTED-IN-PART

1 hh

2

3 FISH & RICHARDSON, PC

4 P.O. BOX 1022

5 MINNEAPOLIS, MN 55440-1022

6

7

8

9